UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/631,942	07/30/2003	Lichen Wang	M-15074-1P US	1753

32605 7590 09/19/2007		EXAMINER
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ART UNIT	PAPER NUMBER
2612	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/631,942	WANG ET AL.
	Examiner	**Art Unit**	
	Hung Q. Dang	2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _6/22/2007_.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-71_ is/are pending in the application.

    4a) Of the above claim(s) _30-49_ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _1-8 and 65-71_ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on _30 July 2003_ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1. This communication is in response to application's amendment dated

6/22/2007. The amendment of claims 1-2; the cancellation of claims 9-29, 50-64; and

the addition of claims 65-71 have been entered.

Response to Arguments

2. Applicant's arguments filed on 6/22/2007 have been fully considered but they

are not persuasive.

Regarding claims 1 and 65, the applicant argues that Lee (U.S. Patent

6,556,187) in view of Kuo (U.S. Patent 6,760,773) does not disclose or suggest a

method step including verifying that a first data segment is a hexadecimal **constant** that

indicates transmission code is being sent. The examiner disagrees with the applicant.

The first data segment (Byte 1) disclosed by Lee is indeed a constant with respect to

each transmission of each device (the wireless keyboard and the track-ball each has its

own ID constant). Therefore, the first data segment (Byte 1) is indeed an ID **constant**

representing each device. Furthermore, one of ordinary skill in the art would recognize

that if more than one device involved in data transmission, then clearly, an ID constant

would be assigned to each device for identification purpose. Therefore, if only ONE

device is involved in data transmission (like in the case of claim 1), then clearly, the ID

(first data segment) would be constant.

Also, the receipt of the first data segment by the computer disclosed by Lee does

indicate transmission code is being sent. The only limitation of claim 1 that Lee does

not teach is that said constant being a hexadecimal. As mentioned in the previous

office action, Lee teaches the method of claim 1 containing a constant in the first data

segment, except wherein said data in the first segment is represented by hexadecimal

FF *(for claim 65)*.

Kuo, in the same field of endeavor, teaches a wireless data transmission method

for transmitting make codes and break codes from a keyboard, wherein said codes are

represented by hexadecimal codes (column 2, lines 37-46). Even though, Kuo does not

specifically disclose that the first data segment is a hexadecimal FF, however, the

specification of this application does not disclose the criticality as to why the data

segment has to be hexadecimal **FF** (any hexadecimal representation would be

functionally equivalent as "FF"). Therefore, it would have been obvious to one skilled

practitioner to derive such hexadecimal code (FF) (or any other hexadecimal code) to

represent the first data segment disclosed by Lee in view of Kuo.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-8 and 65-71 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Lee U.S. Patent 6,556,187 in view of Kuo U.S. Patent 6,760,773.

Regarding claim 1, Lee discloses a wireless data transmission method,

comprising:

- providing a first data segment (Figure 5, "Byte 1" is the first data segment);

- Verifying that the first data segment is a constant that indicates transmission

  code is being sent (column 3, lines 36-60; as explained above, the constant in

  this case is the ID of each device, with respect to each transmission);

- Providing a variable second data segment that indicates making a key or

  breaking a key (column 3, lines 62-65; Byte 2 is the second data segment;

  "key pressed" = key making; "key released" = key breaking);

- Providing a third data segment to indicate a context code (paragraph bridging

  columns 3-4); and

- Providing a fourth data segment as an error check of the second and third

  data segments (column 4, lines 7-10).

However, Lee does not teach said constant being a hexadecimal (*FF for claims*

2 and 65).

Kuo, in the same field of endeavor, teaches a wireless data transmission method

for transmitting make codes and break codes from a keyboard, wherein said codes are

represented by hexadecimal codes (column 2, lines 37-46). Even though, Kuo does not

specifically disclose that the **first data segment** is a hexadecimal **FF**, however, the

specification of this application does not disclose the criticality as to why the data

segment has to be hexadecimal **FF** (any hexadecimal representation would be functionally equivalent as "FF"). Therefore, it would have been obvious to one skilled practitioner to derive such hexadecimal code (FF) (or any other hexadecimal code) to represent the first data segment disclosed by Lee in view of Kuo.

Regarding claims 3 and 66, the second data segment disclosed by Lee also indicates the releasing of a single pressed key (column 3, lines 62-65).

Regarding claims 8 and 71, Lee teaches the method of claim 8 with a checksum algorithm. However, Lee does not specifically teach a **"cyclic redundancy"** checksum algorithm. The examiner takes official notice that cyclic redundancy checksum algorithm has been commonly used in data communication systems for solving transmission errors. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to provide cyclic redundancy checksum algorithm to the wireless data transmission method disclosed by Lee in order to solve data transmission errors.

Claims 4-7 and 67-70 are rejected for the same reasoning as the rejection of claim 2.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Q. Dang whose telephone number is (571) 272-3069. The examiner can normally be reached on 9:30AM-6PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Zimmerman can be reached on (571) 272-3059. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Hung Q Dang
9/13/2007
H.D.

BRIAN ZIMMERMAN
PRIMARY EXAMINER